## REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed June 10, 2008. Claims 1-20 remain pending in the present application. Reconsideration and allowance of the application and pending claims are respectfully requested.

# Claim Rejections - 35 U.S.C. § 103(a)

Claims 1-20 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Robertson* (U.S. Patent Publication No. 2002/0188538) in view of *Pace* (U.S. Patent Publication No. 2003/0050932). Applicant respectfully traverses the rejections.

# a. Claim 1

As provided in independent claim 1, Applicant claims:

A method to provide a service in a controlled run-time environment, comprising:

registering a proxy service in said controlled run-time environment wherein said proxy service implements an interface defined according to said controlled run-time environment configured to services operating in said controlled run-time environment to interoperate with said proxy service:

receiving service information by said proxy service from a local service executing in said controlled run-time environment via an interface method of said proxy service;

determining by said proxy service whether the received service information is valid for a remote service requested to be invoked by said proxy service, wherein an exception is returned to said local service from said proxy service without communication of invalid service information to said remote service when a determination of invalid service information is made by said proxy service:

communicating said service information to said remote service from said proxy service when a determination of valid service information is made by said proxy service:

receiving processed information from said remote service in response to said communicating; and

returning said processed information to said local service from said proxy service.

(Emphasis added).

Applicant respectfully submits that independent claim 1 is allowable for at least the reason that *Robertson* in view of *Pace* does not disclose, teach, or suggest at least "determining by said proxy service whether the received service information is valid for a remote service requested to be invoked by said proxy service, wherein an exception is returned to said local service from said proxy service without communication of invalid service information to said remote service when a determination of invalid service information is made by said proxy service [and] communicating said service information to said remote service from said proxy service when a determination of valid service information is made by said proxy service." as emphasized above.

For example, Robertson describes a proxy or a service object to a web service. "The proxy is an object (or objects) that allows clients to access a service. The proxy is streamed to registrar 914A where it is stored in serialized form. When a consumer of service 910A looks up that service, the proxy is, in turn, streamed out to the consumer." Paragraph 0190. "In its simplest form, a proxy merely forwards requests from a consumer, for instance, on to services 910A. However, the proxy might also contain any code that could be executed in a client environment before, after or instead of forwarding the request."

Paragraph 0193. Robertson (and Pace) fail to disclose, however, "determining by said proxy service whether the received service information is valid for a remote service requested to be invoked by said proxy service, wherein an exception is returned to said local service from said proxy service without communication of invalid service information to said remote service when a determination of invalid service information is made by said proxy service [and] communicating said service information to said remote service from said proxy service when a determination of valid service information is made by said proxy service," as emphasized above.

Pace further discloses the use of a stub object which acts a proxy of an actual object; that a CDS/ADS can proxy a request for a server being requested from a target environment; and that the server would either be on the CDS/ADS or in the source environment. See paras. 0902-0903. Accordingly, Pace discloses that a service in one environment (e.g., target environment) makes use of a proxy service in a different environment (e.g., on the CDS/ADS). For at least this reason, Pace individually or in combination with Robertson fails to teach or suggest "determining by said proxy service whether the received service information is valid for a remote service requested to be invoked by said proxy service, wherein an exception is returned to said local service from said proxy service without communication of invalid service information to said remote service when a determination of invalid service information is made by said proxy service [and] communicating said service information to said remote service from

said proxy service when a determination of valid service information is made by said proxy service," as recited in claim 1.

As a result, claim 1 is patentable over *Robertson* in view of *Pace*, and the rejection of claim 1 should be withdrawn.

## b. Claims 2-9

Claim 1 is allowable over the cited art of record for at least the reasons given above. Since claims 2-9 depend from claim 1 and recite additional features, claims 2-9 are allowable as a matter of law over the cited art of record.

## c. Claim 10

As provided in independent claim 10, Applicant claims:

A system to provide a modular software service, the system having a processor and comprising:

controlled run-time environment means for managing processes;

service registry means for registering services operating in said controlled run-time environment means, wherein at least one registered service is a proxy service means;

said proxy service means implementing an interface defined according to said controlled run-time environment means for enabling services operating in said controlled run-time environment means to interoperate with said proxy service means, said proxy service means comprising:

means for receiving service information by said proxy service means from a local service executing in said controlled run-time environment means:

means for determining by said proxy service means whether the received service information is valid for a remote service requested to be invoked by said proxy service means, wherein an exception is returned to said local service from said proxy service means without communication of invalid service information to said remote service when a determination of invalid service information is made by said proxy service means:

means for communicating said service information to said remote service from said proxy service means when a determination of valid service information is made by said proxy service means:

means for receiving processed information from said remote service in response to said communicated service information; and

means for returning said processed information to said local service.

# (Emphasis added).

Applicant respectfully submits that independent claim 10 is allowable for at least the reason that *Robertson* in view of *Pace* does not disclose, teach, or suggest at least "means for determining by said proxy service means whether the received service information is valid for a remote service requested to be invoked by said proxy service means, wherein an exception is returned to said local service from said proxy service means without communication of invalid service information to said remote service when a determination of invalid service information is made by said proxy service means [and] means for communicating said service information to said remote service from said proxy service means when a determination of valid service information is made by said proxy service means," as emphasized above.

For example, Robertson describes a proxy or a service object to a web service. "The proxy is an object (or objects) that allows clients to access a service. The proxy is streamed to registrar 914A where it is stored in serialized form. When a consumer of service 910A looks up that service, the proxy is, in turn, streamed out to the consumer." Paragraph 0190. "In its simplest form, a proxy merely forwards requests from a consumer, for instance, on to services

910A. However, the proxy might also contain any code that could be executed in a client environment before, after or instead of forwarding the request." Paragraph 0193. *Robertson* (and *Pace*) fail to disclose, however, "means for determining by said proxy service means whether the received service information is valid for a remote service requested to be invoked by said proxy service means, wherein an exception is returned to said local service from said proxy service means without communication of invalid service information to said remote service when a determination of invalid service information is made by said proxy service means [and] means for communicating said service information to said remote service from said proxy service means when a determination of valid service information is made by said proxy service means," as emphasized above.

Pace further discloses the use of a stub object which acts a proxy of an actual object; that a CDS/ADS can proxy a request for a server being requested from a target environment; and that the server would either be on the CDS/ADS or in the source environment. See paras. 0902-0903. Accordingly, Pace discloses that a service in one environment (e.g., target environment) makes use of a proxy service in a different environment (e.g., on the CDS/ADS). For at least this reason, Pace individually or in combination with Robertson fails to teach or suggest "means for determining by said proxy service means whether the received service information is valid for a remote service requested to be invoked by said proxy service means, wherein an exception is returned to said local service from said proxy service means without communication of invalid

service information to said remote service when a determination of invalid service information is made by said proxy service means [and] means for communicating said service information to said remote service from said proxy service means when a determination of valid service information is made by said proxy service means," as recited in claim 10.

As a result, claim 10 is patentable over *Robertson* in view of *Pace*, and the rejection of claim 10 should be withdrawn.

#### d. Claims 11-16

Claim 10 is allowable over the cited art of record for at least the reasons given above. Since claims 11-16 depend from claim 10 and recite additional features, claims 11-16 are allowable as a matter of law over the cited art of record.

## e. Claim 17

As provided in independent claim 17, Applicant claims:

A computer-readable storage medium that comprises executable instructions for providing a service in a controlled runtime environment, said executable instructions comprising:

code for registering a proxy service in said controlled runtime environment wherein said proxy service implements an interface defined according to said controlled run-time environment to enable services operating in said controlled run-time environment to interoperate with said service;

code for receiving service information by said proxy service from a local service executing in said controlled run-time environment via a method of said proxy service:

code for determining by said proxy service whether the received service information is valid for a remote service requested to be invoked by said proxy service, wherein an exception is returned to said local service from said proxy service without communication of invalid service information.

to said remote service when a determination of invalid service information is made by said proxy service;

code for communicating said service information to said remote service from said proxy service when a determination of valid service information is made by said proxy service:

code for receiving processed information from said remote service in response to said communicating; and

code for returning said processed information to said local service from said proxy service.

(Emphasis added).

Applicant respectfully submits that independent claim 17 is allowable for at least the reason that *Robertson* in view of *Pace* does not disclose, teach, or suggest at least "code for determining by said proxy service whether the received service information is valid for a remote service requested to be invoked by said proxy service, wherein an exception is returned to said local service from said proxy service without communication of invalid service information to said remote service when a determination of invalid service information to said remote service [and] code for communicating said service information to said remote service from said proxy service when a determination of valid service information is made by said proxy service," as emphasized above.

For example, Robertson describes a proxy or a service object to a web service. "The proxy is an object (or objects) that allows clients to access a service. The proxy is streamed to registrar 914A where it is stored in serialized form. When a consumer of service 910A looks up that service, the proxy is, in turn, streamed out to the consumer." Paragraph 0190. "In its simplest form, a proxy merely forwards requests from a consumer, for instance, on to services

910A. However, the proxy might also contain any code that could be executed in a client environment before, after or instead of forwarding the request." Paragraph 0193. *Robertson* (and *Pace*) fail to disclose, however, "code for determining by said proxy service whether the received service information is valid for a remote service requested to be invoked by said proxy service, wherein an exception is returned to said local service from said proxy service without communication of invalid service information to said remote service when a determination of invalid service information to said remote service [and] code for communicating said service information to said remote service from said proxy service when a determination of valid service information is made by said proxy service when a determination of valid service information is made by said proxy service," as recited in claim 17.

Pace further discloses the use of a stub object which acts a proxy of an actual object; that a CDS/ADS can proxy a request for a server being requested from a target environment; and that the server would either be on the CDS/ADS or in the source environment. See paras. 0902-0903. Accordingly, Pace discloses that a service in one environment (e.g., target environment) makes use of a proxy service in a different environment (e.g., on the CDS/ADS). For at least this reason, Pace individually or in combination with Robertson fails to teach or suggest "code for determining by said proxy service whether the received service information is valid for a remote service requested to be invoked by said proxy service, wherein an exception is returned to said local service from said proxy service without communication of invalid service information to said remote service when a determination of invalid service information is made by

said proxy service [and] code for communicating said service information to said remote service from said proxy service when a determination of valid service information is made by said proxy service," as recited in claim 17.

As a result, claim 17 is patentable over *Robertson* in view of *Pace*, and the rejection of claim 17 should be withdrawn.

# e. Claims 18-20

Claim 17 is allowable over the cited art of record for at least the reasons given above. Since claims 18-20 depend from claim 17 and recite additional features, claims 18-20 are allowable as a matter of law over the cited art of record.

# CONCLUSION

Applicant respectfully submits that Applicant's pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted.

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